

ABSTRACT OF THE DISCLOSURE

A thin-film includes an inductive element and a first and second magneto-resistive effect elements in which the first and second magneto-resistive effect elements are arranged in proximity to each other on a substrate, and one surface of the substrate perpendicular to the surface formed with the first and second magneto-resistive effect elements constitutes a slider surface, thereby providing appropriate hight of the magneto-resistive effect elements.

1. A thin-film including an inductive element and a first and second magneto-resistive effect elements arranged in proximity to each other on a substrate, and one surface of the substrate perpendicular to the surface formed with the first and second magneto-resistive effect elements constitutes a slider surface, thereby providing appropriate hight of the magneto-resistive effect elements.